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ABSTRACT

Perceived well-being and personal stress indicators among various subpopulations in two small western towns (one stable, one affected by an energy development boom) are examined to assess the notion that residents of energy boom communities experience generalized social pathology and disruption. A 2-stage data collection process used hand-delivered, self-completed, hand-collected questionnaires from a random sample of 95 houses and 98 mobile homes in Evanston, Wyoming (boom town) and 100 households in Tremonton, Utah (stable community). Questionnaires to 640 energy industry workers in contractor-operated workcamps had a low response rate (11.4%), but provided some indicators of attitudes/perceptions. Respondents were divided into mobile home households (largely newcomers), household units with more than five years residence (oldtimers) and less than five years residence (newcomers), and workcamp residents. Results indicated that although important variations in concern for personal safety, feeling at home, and satisfaction with friendships and spare-time activities occurred between these subpopulations, personal stress indicators illustrated minimal differences between boom town and stable community populations, suggesting that boom town residents appeared to cope fairly well and consequently tended not to exhibit atypical levels of stress. (MH)

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Perceived Well-Being and Personal Stress in an Energy Boom Town: Contrasts and Similarities Across Divergent Groups

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ABSTRACT

A burgeoning sociological literature pertaining to the effects of rapid community growth in the western U.S. has repeatedly asserted that the "boom" often accompanying energy development projects results in multifaceted social disruption, a conclusion which has been increasingly subjected to criticism and scrutiny in recent years. Among the limitatations of the "social disruption" hypotheses has been a tendency to assert the existence of social pathology as a generalized community phenomenon. Such an approach overlooks the possibility that success or failure at coping with the changes and stress which may accompany boom growth will vary substantially across distinct subpopulations within a given community. This paper addresses this possibility through an examination of perceived well-being and personal stress indicators among various subpopulations in two small, western towns, one affected by a substantial boom occurring via energy development and the other a stable community, isolated from such effects. Results indicate that important variations occur between subpopulations within each community. Moreover, personal stress indicators illustrate minimal differences between boom town and stable community subpopulations, suggesting that boom town residents appear to cope fairly well and consequently tend not to exhibit atypical levels of stress.

Introduction

A growing literature pertaining to social disruptions and personal malaise in western energy "boom towns" has emerged in the past decade. Initial observations and generalizations from that literature have been criticized (e.g. Wilkinson et al., 1982), giving rise to equally critical rebuttals and countercriticisms (e.g. Albrecht, 1982; Finsterbusch, 1982; Freudenburg, 1982a; Gale, 1982; Gold, 1982; Murdock and Leistritz, 1982). The resulting revisions and uncertainties regarding the predominant theme of social disruption due to rapid population expansion in predominantly rural impact areas create a context in which a need exists for additional research and conceptual development (Wilkinson et al., 1982).

Among the shortcomings of the existing research base is the relatively limited attention directed to newcomers in the community as opposed to assertions or analyses pertinent only to the aggregate population of growth-impacted places. It is often asserted that newcomers suffer disproportionately from adjustment problems (Freudenburg, 1981), and are largely responsible for many of the commonly noted boom town "problems" (Freudenburg, 1982b). However, the scant research which has focused on newcomers has, with only limited exceptions (e.g. Massey and Lewis, 1979), not contrasted specific subsets of both newcomer and oldtimer populations within boom towns, nor compared them with corresponding populations in non-boom communities. As a result, there remains a critical gap in the sociological understanding of how and why certain subpopulations may exhibit the often presumed indicators of stess and dislocation associated with boom town life. The degree to which other groups in the community may experience successful adaptation is similarly uncertain.

The purpose of this paper is to explore these areas of uncertainty. The research examines several attitudinal and perceptual indicators reflecting the degree to which individuals experience personal well-being and individual stress. In order to more carefully assess the general " disruption" hypothesis

(Wilkinson et al., 1982), the research incorporates survey data collected in both a widely recognized contemporary "boom town" in southwestern Wyoming and a carefully selected non-boom "control" community in northeastern Utah. Samples from each community are further disaggregated to differentiate between relative "newcomers" and more established local residents. The analysis examines boom town mobile home park residents as a separate and possibly differentially impacted population (Massey and Lewis, 1979). In addition, we consider a clearly distinct local newcomer population consisting of residents of company-operated bachelor quarters or "man camps". Such construction worker housing arrangements are becoming increasingly common in western energy development areas (Metz, 1980), and house large numbers of workers who represent a potentially important component of the personal and collective "disruption" in energy boom towns.

Background

During the 1970s energy developments in the western U.S. became a focus of considerable controversy at local, regional and national levels (see Little, 1976; Clemente and Krannich, 1982). One of the emergent issues related to such developments has revolved around the social effects of rapid development-induced growth in the generally small, isolated, rural communities impacted by large-scale resource extraction and conversion processes. Although such communities are generally receptive to such projects on the basis of presumed employment and economic growth benefits (Little and Lovejoy, 1979), many local residents as well as numerous researchers share a conviction that possible economic benefits may be negated by fiscal distress, disruption of established ways of life, and pathological social disorganization which presumably accompany rapid development (see Gold, 1974; Freudenburg, 1982b; Little, 1976; Cortese, 1982; Cortese and Jones, 1977; Wilkinson et al., 1982). Rapid population expansion, inadequate or inappropriate planning,

and limited infrastructure capacities have presumably resulted not only in overloaded public and private services and facilities but also in the dissolution of social ties, personal stress, and social disorganization, giving rise to a broad range of "pathological" behaviors indicated by increasing rates of crime, mental health problems, suicide, alcohol and drug abuse, and so forth (see, for example, Kohrs, 1974; Gilmore and Duff, 1975; Little, 1976; 1977; Cortese, 1982, Cortese and Jones, 1977; Freudenburg, 1976; 1978; 1979a; 1979b).

Unfortunately, the scientific validity of these now-common assertions about deteriorated personal well-being and individual stress and social malaise in boom towns has been only imperfectly established. Case studies have been the prevailing research design, thus restricting the generalizability of observations. Moreover, many generalizations have been based upon poorly documented assertions and weak empirical evidence (Wilkinson et al., 1982). As Wilkinson and his associates have noted, the largely descriptive extant literature dealing with social disruption accompanying rapid growth has provided only a first step in the development of a scientific understanding, and must be expanded by "developing precise conceptual and analytical approaches" (1982: 275-76).

Although in the aggregate the existing boom town literature has developed without the guidance of well-specified theoretical frameworks or explicit hypotheses, a common underlying supposition has been that rapid population growth resulting from the inmigration of workers and their families will strain established social structures (Cortese, 1982). The inability of existing forms of social organization to cope with and accomodate rapid growth is presumed to lead to the disintegration of social and economic institutions and to a deterioration in the quality of life for all residents. The resulting "pathological" social disorganization is presumably reflected in a host of social problem indicators (see Freudenburg, 1982b).

Evidence in support of this set of suppositions has been provided by a number of researchers. In one of the most widely cited early studies, Gilmore and Duff (1975) reported that rapid growth in Sweetwater County, Wyoming had overwhelmed local facilities and resources, that crime-related complaints rose 60 percent in one year, the mental health clinic's caseload increased 900 percent over five years, and problems of alcoholism, broken homes and suicide reportedly increased substantially.

Freudenburg has similarly reported increases in the incidence of diverse social problem indicators which outstripped the rate of population growth in Craig, Colorado (see Freudenburg, 1978; 1979a; 1979b; 1982). For example, a doubling of population over a two-year period was accompanied by a reported 200 percent increase in crime, a 352 percent increase in family disturbances, a 1000 percent increase in child behavior problems, a 550 percent increase in alcohol-related complaints, and a 1400 percent increase in drug-related reports. Property crime increased by 222 percent, while crime against persons increased 900 percent (Freudenburg, 1978:5).[1] A more extended analysis indicated a "disproportionate increase in the local mental health center's boom-era caseload" involving both newcomers and oldtimers to the town (Freudenburg, 1982a: 348-349). Interestingly, however, an assessment of adult residents' evaluations of the quality of life indicated few differences between boom town residents and residents of three non-boom communities in the area (Freudenburg, 1978). Moreover, although high school students in the boom town were far more likely than those in the non-boom communities to evaluate local changes negatively (Freudenburg, 1979a), elderly individuals and women, often suspected to be among the most negatively affected groups in boom towns, exhibited no subjective symptoms of declining personal well-being (Freudenburg, 1979b; 1981). This evidence suggests both a potential disparity

between "objective" and "subjective" indicators of boom town consequences and a need to disaggregate the local population and analyze specific subpopulations separately.

In contrast to these and similar studies, other researchers have reported that for at least some "social problem" indicators any increases have simply paralleled the degree of population increase, with the rate of the specific "disorganization" indicator remaining relatively constant. For example, Little (1977) found that while absolute crime did increase along with population growth in Page, Arizona during a period of energy development, the crime rate remained essentially constant. Thompson (1979) reported that crime rates against property in Wyoming counties increased disproportionately with respect to population growth, but also found that rates for crimes against persons, welfare demands, and divorce were not significantly related to population changes. Similarly, Thompson et al (1980:19) found that "rapid growth does not cause a significantly greater increase in divorce rates than occurs in counties experiencing less growth". Although these and similar findings must be interpreted carefully, they do suggest that at least some of the absolute increase in some boom town "disorganization" indicators may simply reflect an increased number of individuals "at risk" in the local population. Moreover, even an increase in the relative rates of such indicators could reflect national trends whereby some so-called "pathologies" become more evident in rural areas as a consequence of cultural diffusion from urban centers (see Fischer, 1980; Wilkinson et al, 1982).

Clearly, the available evidence provides inconsistent and inconclusive support for the notion that residents of energy boom communities experience social pathology and disruption, resulting in a state of knowledge characterized by uncertainty and confusion. This dilemma is linked in part to broader theoretical uncertainties regarding the consequences of modernization and urbanization for social relations

and individual well-being. Traditional community sociology has asserted that the transformation from a traditional communal context to more modern conditions so thoroughly disrupts established social networks, ways of life, and behavioral expectations that a state of "anomie" results (see Maine, 1861; Toennies, 1887; Durkheim, 1893), presumably accompanied by a deterioration of social integration and personal and social disorganization. Such conditions may presumably foster a sense of transiency, isolation, and insecurity, leading in turn to individual stress, frustration, and alienation (see Fischer et al., 1977; Kasarda and Janowitz, 1974).

Similarly, theoretical perspectives pertaining to the effects of urbanization have suggested that a shift toward more urban circumstances results in impersonal social relations, weakened kinship and friendship ties, and a declining importance of local neighborhood forms of association (Simmel, 1950; Wirth, 1938). Such changes have long been presumed to result in higher levels of individualization, social isolation, alienation, and anomie. As with the more general theorists positing an "eclipse of community" (Stein, 1960), adherents to the traditional theories of urbanism have postulated that the consequences of these conditions include a less integrated society, greater levels of social pathology such as crime, suicide, and mental illness, and in general social disorganization (Bender, 1978).

In contrast to these traditional perspectives, numerous studies have suggested that such assertions may be inappropriate (e.g. Webb, 1978; Webb and Collette, 1977; Suttles, 1972; Kasarda and Janowitz, 1974; Hunter, 1974, 1978; Srole, 1972, 1977; Fischer, 1976). As Bender (1978) has observed, this theoretical tradition reflects a strong conservative bias, a nostalgic but inaccurate interpretation of historical community conditions, and an incomplete conceptualization which ignores elements included in the seminal works of Toennies and other key theorists. Nevertheless,

some of the assessments of social problems in rapid growth "boom" communities noted above appear more supportive of such traditional orientations, suggesting a need for further examination of both theoretical and empirical evidence.

If any single conclusion may be drawn from the preceding discussion it is that a great deal of uncertainty pervades our understanding of community change and the effects of rapid growth on local social structures and personal integration and well-being. The research reported here represents an attempt to address some important unknowns regarding responses and adaptations among persons differentially affected by the kinds of community change which tend to be associated with energy development. In so doing, we hope both to contribute to scientific knowledge and to provide insights which may be applied in future attempts to anticipate and address some of the questions raised regarding actual or proposed energy development projects.

The Study

The analysis reported here derives from a larger project focused upon energy development and its various effects on social relations in small, nonmetropolitan communities in Utah and Wyoming. The present analysis focuses upon only two of these communities, one a widely recognized energy "boom town", the other a relatively stable "control" community.

Evanston, Wyoming, located in the extreme southwestern corner of the state, has experienced dramatic population increases commencing about 1977 as a result of a rapid expansion of oil and natural gas exploration, extraction, and processing developments in the surrounding "Overthrust Belt". With a population in 1970 of 4,462, Evanston remained, until the late 1970s, a relatively isolated small town which, despite modest population fluctuations, maintained a relatively stable

and predominantly Mormon population base for several decades. By 1980, however, the population had increased to 6,421 (U.S. Bureau of the Census, 1982), a figure which should be viewed as a low estimate since rapid population turnover and a substantial population of roadside campers and "tent city" residents had appeared in the area by 1980. By 1982 available estimates placed the municipal population at over 11,000 (S. Snyder, personal communication), along with a substantial additional number of recent inmigrants residing in immediately adjacent unincorporated areas surrounding the town.

In contrast to Evanston's rapid growth, Tremonton, Utah has maintained a sustained but modest rate of population increase since 1940. The size of the population in 1970 was 2,794; by 1980 the population had increased by 24 percent to 3,464, a rate of growth substantially below the statewide increase of 37.9 percent (U.S. Bureau of the Census, 1982). In many ways Tremonton resembles pre-boom Evanston in being a relatively small, fairly isolated agricultural service center in a nonmetropolitan county, and like Evanston is located along a major Interstate highway.

Data pertaining to a wide range of attitudinal and perceptual indicators were collected via self-completed questionnaires in a two-stage collection process. In June and July of 1982 survey questionnaires were hand-delivered to a random sample of 193 households in Evanston (95 conventional houses and 98 mobile homes, an allocation which approximates the proportion of housing unit types in Evanston), and to 100 households in Tremonton. At each household response was requested from the self-designated household head (or, if unavailable, from another adult member of the household), and arrangements were made to return two days later to pick up the completed questionnaire. These steps along with repeat calls where necessary resulted in the return of 72 completed questionnaires from conventional homes in Evanston (75.8 percent response), 68 from mobile homes in Evanston (69.4 percent response), and 85 households in

Tremonton (85 percent response).

A similar survey instrument was administered in September, 1982 to a representative sample of energy industry workers residing in two "mancamps" or "workcamps" ~~located in the area surrounding Evanston,~~ both operated by a contractor involved in the construction of one of several major gas processing facilities being built in the area. This type of construction worker housing is becoming increasingly common as a mechanism to mitigate housing shortages. Moreover, both journalistic accounts (Widener, 1982) and our own ethnographic observations among town residents suggested perceptions of dissatisfaction and personal disarray within the workcamp setting, indicating a need for more careful and systematic analysis. A total of 640 questionnaires were distributed to a random sample of residents of the workcamps via on-site mailboxes, with instructions for returning completed questionnaires to a centrally-located collection box. Unfortunately, over 100 questionnaires had not been picked up after two weeks, and ultimately only 72 completed questionnaires were returned. This disappointing 11.4 percent response rate precludes generalization, since those who responded may not be representative of the overall camp population. Nevertheless, these data represent the best available indicators of attitudes and perceptions among the camp residents, and for exploratory purposes allow comparisons with the Evanston and Tremonton community samples.

Findings

For this report respondents have been divided into six groups, representing four fairly distinct living arrangements. As noted earlier, the Evanston residential sample was divided into the mobile home households (virtually all of which are comprised of recent inmigrants to the area) and permanent or conventional household units. The latter subsample was further differentiated by the respondent's length of residence in Evanston: those having resided in Evanston for five years

or less are labelled "newcomers", while those having lived there for more than five years are labelled "oldtimers". The same length of residence distinction was made for respondents living in the control community of Tremonton. The sixth residential category includes the workcamp respondents.

Sociodemographic Characteristics of Respondents

Table 1 provides information on a number of social, economic, and demographic characteristics of the six groups which, in light of manuscript length concerns, will be discussed only briefly. Not unexpectedly, the workcamp residents appear to be the most mobile, reporting the highest average number of communities lived in since age 17 (6.2), the highest average number of fulltime jobs in the past ten years (5.1), and the briefest tenure with their current employer. Oldtimers in both communities evidenced the least residential and occupational mobility.

The family status of respondents in the various groups differs substantially. The average number of children reported by workcamp respondents was 1.78, in contrast with the much higher averages (2.89 to 3.18) among oldtimers in the two communities. There are also substantial differences between the workcamp sample and all other groups with respect to current marital status and divorce experience. Almost 42 percent of the workcamp respondents have been divorced at least once, and thirty-one percent are either currently separated or divorced, far exceeding levels reported among the other groups. In addition, 27 percent of the workcamp respondents had never been married. These differences reflect in part the fact that 62 percent of the Evanston oldtimers and 86 percent of the Tremonton oldtimers are members of the LDS (Mormon) church, which actively encourages marriage and large family size.

Other socio-demographic characteristics which further differentiate the separate groups may also have important implications for any conclusions derived from this analysis. As indicated in Table 1, the sex compositions of the respondent groups vary substantially, as do age distributions. In addition, data on educational background and income levels suggest that the workcamp and Evanston mobile home and newcomer groups are, as would be expected (see Massey, 1977), relatively well trained and tend to earn higher incomes than do long-term residents of Evanston or residents of Tremonton.

Perceived Well-Being

In order to tap several dimensions of personal happiness and well-being, we have examined responses to four questions which reflect: (1) perceived personal safety from crime and violence; (2) the extent of agreeement with the statement "the longer I live here the more I feel at home"; (3) satisfaction with friendship ties; and (4) satisfaction with ways in which spare time is spent. Frequency distributions and summary statistics for responses to these items across the six respondent groups are reported in Table 2.

Turning first to responses to the question on perceived personal safety, the data in Table 2 indicate highest levels of concern for personal safety among the longer-term Evanston residents, with about 35 percent of these "oldtimers" selecting one of the four "most unsafe" response categories on the original 11-point scale. Overall, response patterns for all of the Evanston subsamples appear to reflect greater concern for their personal safety than either the oldtimers or relative newcomers in the control community of Tremonton.

To enhance such a comparison of response patterns across the six subsamples, we calculated Lieberson's index of net difference (ND_{xy}), a summary measure applicable to group comparisons of frequency distributions for ordinal measures

(see Leiberson, 1975). With a range between -1 and +1, this index reflects the probability that on a given variable a randomly chosen case from group "x" will exceed t value of that variable for a randomly chosen case from group "y". Looking at Table 3, we find that calculation of the index of net difference does highlight certain group differences not immediately apparent when examining frequency distributions. For example, the Evanston trailer park residents are somewhat more likely to feel unsafe than are the workcamp respondents (ND=.232) or the Evanston city newcomer respondents (ND=.209), and feel substantially more unsafe than do Tremonton newcomers (ND=.443) or Tremonton oldtimers (ND=.442). Residents of the workcamps and Evanston "newcomers" feel more safe than do "oldtimer" residents of Evanston (ND= -.273 and -.270, respectively). Both "newcomers" and "oldtimers" in Evanston feel less safe than do newcomers and oldtimers in the control community.

Turning next to the question asking whether respondents felt "at home", the frequency distributions in Table 2 indicate that the majority of respondents in all but the workcamp group expressed agreement that they did in fact "feel at home" in their present residential setting. Somewhat surprisingly, the "newcomers" to Evanston expressed levels of agreement roughly equivalent to those expressed by Evanston "oldtimers", unlike the respondents from Tremonton where oldtimers were substantially more likely to report strong agreement with the statement. This disparity may indicate a sense of dislocation among long-term Evanston residents, who have witnessed the dramatic transformation of their town as a result of the energy boom. Not surprisingly, both Evanston trailer park and workcamp respondents expressed substantially less agreement with the statement, undoubtably reflecting the transiency and short-term residence patterns which characterize both of these groups.

These differences are again highlighted by examining the indices of net difference reported in Table 3. Evanston trailer park respondents were significantly more likely to report disagreement with the "feel at home" statement than were Evanston newcomers (ND=.360), Evanston oldtimers (ND=.335), Tremonton newcomers (ND=.395), or especially Tremonton oldtimers (ND=.616). A similar pattern emerges when comparing the responses of workcamp respondents to these other groups. One particularly interesting observation is that while responses of Evanston newcomers to this item were essentially not different from those of Evanston oldtimers (ND=-.018), the newcomers to Tremonton felt less "at home" than did oldtimers in that community (ND=.335). One possible interpretation of this finding is that under conditions of stability, newcomers to a small town may encounter a "closed community" in which acceptance into and access to the established social structure may be quite difficult, while newcomers to a boomtown encounter a more "open" community in which numerous divergent opportunities for acceptance and access to participation may exist.

Considering next "satisfaction with friendships" as a third index of personal well-being, the frequency distributions reported in Table 2 reflect only modest cross-group differences, although the "oldtimers" in Tremonton appear more satisfied than any other group. Indices of net difference reported in Table 3 reinforce this observation. Only two of the coefficients are of a magnitude which is statistically significant using conventional probability criteria, and these indicate that Tremonton oldtimers are more satisfied with their friendship ties than are either Evanston newcomers (ND=.219) or Evanston oldtimers (ND=.220).

A final measure used here to reflect personal well-being was a question pertaining to respondents' satisfaction with ways in which they spend their spare time. An examination of the frequency distributions in Table 2 indicates only modest cross-group differences, with residents of the Evanston trailer parks

appearing to express the greatest dissatisfaction with spare time activities and workcamp residents expressing slightly greater satisfaction than other groups. Turning again to Table 3, the indices of net difference for this set of comparisons indicate that only two differences are significant: Evanston trailer park residents were slightly more likely to report relative dissatsifaction than were either workcamp residents (ND=.199) or Tremonton oldtimers (ND=.236).

Personal Stress

Among the most frequently observed social consequences of boom towns is increased personal stress, a consequence asserted to affect long-term residents and newcomers alike (see Freudenburg et al., 1982; Lantz and McKeown, 1979). To assess the presence of personal stress and its variability among the groups examined here, we adopted two complementary approaches to the measurement of individual stress. First, we asked a very straightforward question, "How much stress and strain is there in your everyday life?" Such an item has been found to provide a good summarizing measure of personal stress (Hagadorn and Webb, 1978), and also provides insight into the respondent's self-perception of his or her experience with stress.

In addition, we incorporated a set of fourteen likert-type "symptomatic" indicators of psychological impairment taken from a larger set of questionnaire items derived from the works of Langer (1962) and Gurin et al.(1960) which have been used widely in prior research on stress and psychological impairment. These fourteen items were combined into an additive "stress index" with a range from 14 (very high stress) to 56 (very low stress). For this index item-to-total correlations ranged between .418 and .719, and the alpha reliability coefficient was .896, indicative of the substantial unidimensionality of the composite measure.

Considering first the single item pertaining to perceived "everyday" stress, the frequency distributions reported in Table 4 suggest that the "newcomer" group in traditional housing in Evanston felt the greatest personal stress levels, and that "oldtimers" in Tremonton perceived the least. Turning to Table 5, calculation of the index of net difference indicated that workcamp respondents perceived less personal stress than Evanston newcomers (ND=.242), and that Evanston newcomers perceived significantly more personal stress than did either Evanston oldtimers (ND= -.288) or Tremonton oldtimers (ND= -.301). All other observed differences between groups were not statistically significant.

Turning finally to the multiple-item symptomatic index of psychological stress, the data reported in Table 4 for collapsed response categories again appear to reflect only modest differences across the six groups considered here, with the residents of Evanston trailer parks and newcomers in Tremonton appearing to exhibit slightly higher stress levels. However, an examination of the indices of net difference in Table 5 indicates that only the Tremonton newcomers exhibited response patterns (on the collapsed index) which are indicative of significantly higher levels of stress than those measured among the other groups. This interpretation is reflected by the comparison of the Tremonton newcomers with workcamp respondents (ND_{yx}= .323), Evanston newcomers (ND_{yx}=.341), Evanston oldtimers (ND_{yx}=.330), and Tremonton oldtimers (ND_{xy}=-.214, a sign reversal which reflects only the use of the newcomers as "x" and oldtimers as "y" in that comparison). Interestingly, these results provide no evidence of higher stress levels among any of the Evanston groups in comparison with respondents from the non-boom town of Tremonton.

Discussion

On the basis of these findings several observations can be made. First, any assertions about reduced well-being and increased stress among boomtown residents must be qualified by a recognition that such effects may be observed among only some boom town subpopulations. For instance, while trailer park respondents, conventionally-housed "newcomers", and "oldtimers" in Evanston generally reported significantly greater concern for personal safety than did either of the Tremonton groups, that difference was not apparent when considering respondents from the Evanston workcamps. Although this observation may largely reflect the unique age/sex composition of the workcamp group, it nevertheless denotes a need to examine such group differences carefully before making broad assertions about human impacts in boomtowns.

Similarly, the fact that Evanston newcomers living in conventional housing are substantially more likely to "feel at home" than their trailer park counterparts, and essentially as "at home" as local oldtimers indicates the potential importance of residential segregation of boomtown newcomers in mobile home parks as a factor which may impede their sense of acceptance and belonging in the broader local community (see Massey and Lewis, 1979).

Second, the evidence reported here fails to provide strong and consistent support for the "boomtown disruption" hypothesis. Although for the most part respondents in the various Evanston groups were more concerned about their personal safety and felt less "at home" than respondents from the control community, such differences were neither universally apparent nor especially strong, especially when compared to responses of the Tremonton newcomers. When considering questions directed to friendship satisfaction, satisfaction with spare time activities, and

both stress indicators, any differences between the boomtown groups and respondents from the control community become even less evident, or, in the case of the index of psychological stress, reflect greater "impairment" in the control community rather than in one or more of the boom town groups.

Third, the frequent assertion that boomtown newcomers are disproportionately prone to personal malaise must also be questioned in light of the findings reported here. For instance, longer-term Evanston residents reported greater concern about personal safety than any of the three "newcomer" groups, although all felt less safe than residents of the control community. Evanston trailer park residents and workcamp respondents did report feeling less "at home" than Evanston oldtimers, but Evanston "newcomers" in conventional housing were no less likely than oldtimers to report feeling at home. Evanston oldtimers were no more likely than any of the newcomer groups to express satisfaction with their friendships, and were also not as a group significantly more satisfied with their spare time activities. In terms of the stress measures, only one of the three Evanston newcomer groups (the "newcomers" in conventional housing) exhibited a significantly higher probability of a response reflecting perceived everyday stress, and none of the Evanston newcomer groups exhibited a tendency toward greater stress as measured by the multiple-item psychological impairment index.

Obviously such observations cannot resolve the continuing debate over the validity of the boomtown disruption hypothesis. Although the measures considered here reflect some of the areas of presumed social and psychological impact in energy boomtowns, numerous additional human impact dimensions must be examined to fully assess the costs and benefits of rapid growth accompanying some western energy development projects. Comparisons involving different types of energy

development communities are needed, as are longitudinal assessments. Nevertheless, both by its failure to find evidence which consistently supports the disruption hypothesis and by denoting the potential importance of variations which may distinguish some sub-groups in terms of their ability to successfully adapt to boom town conditions, this effort has hopefully provided an additional building block which will strengthen the foundation of future research in the area.

FOOTNOTES

[1] These and similar reports of dramatic proportionate increases in such indicators must be viewed with caution, since either low initial levels or changed reporting practices may grossly overexaggerate the actual amount of change, a caution noted by Freudenburg in his more recent work (e.g. Freudenburg, 1982b).

Table 1. Socio-demographic characteristics of the respondent groups.

	Evanston Trailers	Workcamps	City of Evanston Newcomers	City of Evanston Oldtimers	Tremonton Newcomers	Tremonton Oldtimers
Mobility Indicators						
Average number of communities lived-in	5.0	6.2	5.8	3.6	5.0	4.1
Average number of fulltime jobs in last 10 years	3.8	5.1	4.2	2.0	2.1	1.4
Average number of months with current employer	30.4	16.6	23.1	37.4	33.7	42.1
Family Status						
Average number children	2.35	1.78	2.00	2.89	2.50	3.18
Percent ever divorced	26.5	41.7	9.4	12.5	26.9	22.0
Average number of divorces of those ever divorced	1.3	2.0	2.0	1.8	1.1	1.1
Current marital status (%)						
Never married	6.0	27.0	6.0	8.0	4.0	5.0
Spouse elsewhere, temp.	3.0	31.0	3.0	---	---	---
Married	88.0	10.0	91.0	79.0	85.0	83.0
Widowed	---	1.0	---	11.0	---	5.0
Separated	---	10.0	---	---	---	---
Divorced	3.0	21.0	---	3.0	12.0	7.0
Sex (%)						
Male	51.0	93.0	61.0	46.0	35.0	32.0
Female	49.0	7.0	39.0	54.0	65.0	68.0
Age Distribution (%)						
17 through 25 years	22.0	24.0	16.0	14.0	31.0	9.0
26 through 30 years	28.0	26.0	29.0	8.0	19.0	11.0
31 through 39 years	38.0	24.0	42.0	14.0	38.0	14.0
40 and older	23.0	26.0	13.0	64.0	12.0	66.0
Education (%)						
Less than high school completed	12.0	14.0	3.0	6.0	4.0	12.0
Completed high school	32.0	21.0	16.0	50.0	27.0	41.0
Some college or B.S.	38.0	34.0	39.0	31.0	54.0	34.0
Post-graduate work	5.0	7.0	32.0	6.0	4.0	10.0
Trade school	12.0	25.0	10.0	8.0	12.0	3.0
Religion (%)						
Protestant	47.0	49.0	48.0	22.0	4.0	7.0
Catholic	18.0	15.0	16.0	8.0	12.0	2.0
LDS	13.0	14.0	26.0	62.0	77.0	86.0
Other and none	16.0	21.0	9.0	8.0	8.0	5.0
Income						
Midpoint of category containing the mean	35,000	27,500	35,000	27,500	22,500	17,500
Number In Sample	68	72	32	40	26	59

Note: Percentages may not total 100 percent due to rounding.

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Table 2. Frequency distributions of responses to selected indicators of perceived personal well-being.

		Evanston Trailers		Workcamps		City of Evanston Newcomers		City of Evanston Oldtimers		Tremonton Newcomers		Tremonton Oldtimers	
		N	%	N	%	N	%	N	%	N	%	N	%
Perceived safety from crime and violence													
Safe	1 or 2	3	4.5	15	21.4	2	6.2	1	2.6	5	20.0	10	17.5
	3 or 4	13	19.7	18	25.7	14	43.8	6	15.4	10	40.0	25	43.9
	5, 6 or 7	25	37.9	18	25.7	7	21.9	18	46.1	8	32.0	15	26.3
	8 or 9	18	27.3	16	22.9	8	25.0	9	23.1	1	4.0	6	10.5
Unsafe	10 or 11	7	10.6	3	4.3	1	3.1	5	12.8	1	4.0	1	1.8
N		66		70		32		39		25		57	
Mean		6.32		5.17		5.44		6.56		4.36		4.35	
Feels "at home" here													
Strongly agree		2	3.0	8	11.3	8	25.0	10	27.0	3	12.5	25	45.5
Agree		34	51.5	20	28.2	17	53.1	17	46.0	18	75.0	26	47.3
Disagree		18	27.3	26	36.6	5	15.6	8	21.6	3	12.5	4	7.2
Strongly disagree		12	18.2	17	23.9	2	6.3	2	5.4	--	--	--	--
N		66		71		32		37		24		55	
Median*		2.412		2.788		1.971		2.000		2.000		1.596	
Satisfaction with friendships													
Very satisfied (=1)		38	58.5	37	54.4	15	48.4	18	46.2	13	52.0	39	68.4
Satisfied		21	32.3	24	35.3	13	41.9	20	51.3	8	32.0	17	29.8
Not very satisfied		5	7.7	5	7.4	3	9.7	1	2.5	4	16.0	--	--
Not at all satisfied (=4)		1	1.5	2	2.9	--	--	--	--	--	--	1	1.8
N		65		68		31		39		25		57	
Median*		1.355		1.419		1.538		1.575		1.462		1.231	
Satisfaction with the way spare time is spent													
Satisfied	1 or 2	8	12.3	25	35.2	4	12.5	8	20.0	5	20.0	17	28.8
	3 or 4	19	29.2	14	19.7	9	28.1	12	30.0	7	28.0	15	25.4
	5, 6 or 7	21	32.3	17	23.9	13	40.6	16	40.0	9	36.0	17	28.8
	8 or 9	9	13.9	6	8.4	6	18.8	3	7.5	4	16.0	9	15.3
Dissatisfied	10 or 11	8	12.3	9	12.8	--	--	1	2.5	--	--	1	1.7
N		65		71		32		40		25		59	
Mean		5.554		4.620		5.125		4.550		4.680		4.305	

* Although calculation of a median value is generally inappropriate when applied to ordinal data, it does provide information that is otherwise difficult to summarize from simple frequency distributions. While the calculated median for ordinal data is an "impossible" response category, it does indicate rough directional tendencies among the responses for a given sample, and thus allows a comparison of these tendencies between the separate samples.

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Table 1. Indices of net differences for indicators of perceived well-being.

	Workcamps	City of Evanston Newcomers	City of Evanston Oldtimers	Tremonton Newcomers	Tremonton Oldtimers
Perceived safety from crime and violence					
Evanston trailers	.232 p=.019	.209 p=.094	.055 p=.635	.443 p=.001	.442 p<.001
Workcamps		-.075 p=.540	-.273 p=.018	.151 p=.260	.154 p=.133
Evanston newcomers			-.270 p=.051	.246 p=.109	.258 p=.041
Evanston oldtimers				.516 p<.001	.510 p<.001
Tremonton newcomers					.006 p=.967
(Eleven point scale: 1=safe, 11=unsafe)					
Feels "at home" here					
Evanston trailers	-.099 p=.285	.060 p=.002	.335 p=.002	.395 p=.001	.616 p<.001
Workcamps		.411 p<.001	.391 p<.001	.460 p<.001	.625 p<.001
Evanston newcomers			-.018 p=.891	-.020 p=.886	.273 p=.019
Evanston oldtimers				.007 p=.960	.283 p=.012
Tremonton newcomers					.335 p=.008
(Four categories: 1=strongly agree, 4=strongly disagree)					
Satisfaction with friendships					
Evanston trailers	-.041 p=.635	-.094 p=.414	-.083 p=.421	-.085 p=.486	.119 p=.178
Workcamps		-.048 p=.668	-.037 p=.714	-.043 p=.724	.163 p=.068
Evanston newcomers			.018 p=.894	0	.219 p=.047
Evanston oldtimers				-.016 p=.908	.220 p=.032
Tremonton newcomers					.204 p=.084
(Four categories: 1=very satisfied, 4=not at all satisfied)					
Satisfaction with spare time activities					
Evanston trailers	.199 p=.044	.062 p=.621	.182 p=.116	.153 p=.260	.236 p=.023
Workcamps		-.159 p=.198	-.051 p=.656	-.087 p=.517	.020 p=.841
Evanston newcomers			.141 p=.280	.107 p=.490	.206 p=.102
Evanston oldtimers				-.052 p=.723	.068 p=.560
Tremonton newcomers					.118 p=.388
(Eleven point scale: 1=satisfied, 11=dissatisfied					

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Table 4. Frequency distributions of responses to indicators of personal stress.

	Evanston Trailers		Workcamps		City of Evanston Newcomers		City of Evanston Oldtimers		Tremonton Newcomers		Tremonton Oldtimers	
	N	%	N	%	N	%	N	%	N	%	N	%
How much stress and strain is there in your everyday life?[1]												
A great deal of stress(1)	12	18.2	9	12.5	8	25.0	5	13.2	4	16.0	5	8.9
Moderate amount	30	45.5	36	50.0	17	53.1	15	39.5	11	44.0	28	50.0
Only slight stress	19	28.8	18	25.0	7	21.9	17	44.7	10	40.0	15	26.8
Virtually no stress(=4)	5	7.5	9	12.5	--	--	1	2.6	--	--	8	14.3
N	66		72		32		38		25		56	
Median[2]	2.200		2.250		1.971		2.422		2.273		2.321	
Psychological stress index[3]												
Very high stress 14-20	1	1.5	--	--	--	--	1	2.8	--	--	--	--
21-28	6	8.9	4	6.0	2	6.9	2	5.6	4	16.0	6	12.0
29-41	32	47.8	35	52.2	14	47.3	16	44.4	17	68.0	26	52.0
42-49	24	35.8	19	28.4	9	31.0	15	41.6	4	16.0	14	28.0
Very low stress 50-56	4	6.0	9	13.4	4	13.7	2	5.6	--	--	4	8.0
N	67		67		29		36		25		50	
Median[2]	38.417		40.375		40.250		41.167		36.333		40.000	
Mean	38.821		40.746		40.172		39.833		36.240		39.200	

[1] This question was taken from Bagedorn and Webb (1978), who found it to be a good summarizing measure in comparison with the multiple items developed by Langner(1962), Gurin, et al. (1960), and others.

[2] See note for Table 2 on the use of the median as an indicator of directional tendency.

[3] Alpha reliability coefficient for the psychological stress index = .89601

This index is comprised of the following items derived from a longer list of items taken from Langner(1962), Gurin, et al. (1960), and Bagedorn and Webb (1978). The responses to each item are "much of the time" (1), "sometimes" (2), "hardly ever" (3), "never" (4).

1. Trouble getting to sleep or staying asleep.
2. Nervousness, feeling fidgety or tense.
3. Can't get going in the morning.
4. Restlessness, unable to sit still for long.
5. Personal problems or worries that get you down physically.
6. Feel alone, isolated even from friends.
7. Nothing ever turns out the way you want.
8. Thinking that nothing is worthwhile anymore.
9. Anxious about something or someone.
10. Feel that people are saying all kinds of things about you behind your back.
11. Blue or depressed to the point it interferes with your daily activities.
12. Times when you can't seem to stop thinking about things that are bothering you.
13. Tendency to make little troubles and problems into big ones.
14. Bothered by nightmares.

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Table 5. Indices of net difference for indicators of personal stress.

	Workcamps	City of Evanston Newcomers	City of Evanston Oldtimers	Tremonton Newcomers	Tremonton Oldtimers
Stress and strain in everyday life					
Evanston trailers	-.063 p=.497	.177 p=.124	-.096 p=.386	-.014 p=.916	-.119 p=.228
Workcamps		.242 p=.033	-.032 p=.761	.050 p=.689	-.057 p=.559
Evanston newcomers			-.288 p=.025	-.206 p=.149	-.301 p=.011
Evanston oldtimers				-.089 p=.517	-.026 p=.829
Tremonton newcomers					-.109 p=.401
(Four category: 1=great deal, 2=moderate 3=slight, 4=virtually none)					
Psychological stress index					
Evanston trailers	-.058 p=.193	-.082 p=.520	-.053 p=.438	.271 p=.107	.047 p=.817
Workcamps		-.024 p=.771	.004 p=.926	.323 p=.003	.104 p=.409
Evanston newcomers			.032 p=.979	.341 p=.071	.127 p=.640
Evanston oldtimers				.330 p=.020	.101 p=.511
Tremonton newcomers					-.214 p=.053
(Composite index: 14=very high stress, 56=very low stress)					

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